

Alaska Oil and Gas Conservation Commission

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ADMINISTRATIVE APPROVAL AREA INJECTION ORDER NO. 21A.005

Mr. Tommy Nenahlo Drill Site Petroleum Engineer ConocoPhillips Alaska, Inc. P.O. Box 100360 Anchorage, AK 99510-0360

Re: Docket Number: AIO-14-042

Request for administrative approval allowing seawater injection and up to 4,475 psi sandface pressure during fluid movement logging.

Kuparuk River Unit (KRU) 2P-420 (PTD 2011820), KRU 2P-427 (PTD 2020180), and

KRU 2P-429 (PTD 2011020)

Kuparuk River Field Meltwater Oil Pool

Dear Mr. Nenahlo:

By letter dated October 30, 2014, ConocoPhillips Alaska, Inc. (CPAI) requested administrative approval to add seawater to the authorized injection fluids and allow increased sandface pressures up to 4,475 psi during logging operations for Meltwater injection wells KRU 2P-420 (PTD 2011820), KRU 2P-427 (PTD 2020180), and KRU 2P-429 (PTD 2011020), (collectively "the wells").

CPAI is continuing a program to determine fluid movement around the production casing shoes of the injection wells. During 2014 this program was initiated and authorized under AIO 21A.003 which expired in May 2014. Only three of the six proposed wells were completed during this time. Injecting seawater into the Bermuda formation at varying pressures and monitoring this flow with oxygen activation logging tools is designed to:

- 1. Determine whether there is fluid movement around the production casing shoe during injection within the 3400 psi sand-face injection pressure limit established by AIO 21A (Amended).
- 2. Determine if Miscible Injectant migration is a result of historic sand face injection pressures at Meltwater existing prior to the issuance of AIO 21A (Amended).

The monitoring plan will further investigate reservoir and injection responses for the Meltwater oil pool. CPAI will submit for the wells an Application for Sundry Approvals (Form 10-403) to

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cover the work. Results will be communicated to AOGCC on individual Report of Sundry Well Operations Forms (Form 10-404).

In support of its application, CPAI submitted a fluid compatibility review based on previous laboratory testing. This review showed that for this limited time and volume proposed, there are no operational risks associated with injection of Beaufort seawater in this pool. The change proposed by CPAI will result in increased knowledge of fluid movement and migration, is based on sound engineering and geotechnical reasons, does not promote waste or jeopardize correlative rights, and will not result in increased risk of fluid movement into freshwater.

In accordance with Rule 10 of Area Injection Order (AIO) 021A.000 (Amended), the Alaska Oil and Gas Conservation Commission (AOGCC) hereby **GRANTS** CPAI's request for administrative approval to temporarily authorize injection at sand-face pressures up to 4,475 psi and to temporarily authorize Beaufort seawater as an injection fluid in the wells for a period of 6 months from the date below for the purpose of fluid movement logging.

DONE at Anchorage, Alaska and dated November 21, 2014.

Cathy P. Foerster Chair, Commissioner David J. Mayberry Commissioner

RECONSIDERATION AND APPEAL NOTICE

As provided in AS 31.05.080(a), within 20 days after written notice of the entry of this order or decision, or such further time as the AOGCC grants for good cause shown, a person affected by it may file with the AOGCC an application for reconsideration of the matter determined by it. If the notice was mailed, then the period of time shall be 23 days. An application for reconsideration must set out the respect in which the order or decision is believed to be erroneous.

The AOGCC shall grant or refuse the application for reconsideration in whole or in part within 10 days after it is filed. Failure to act on it within 10-days is a denial of reconsideration. If the AOGCC denies reconsideration, upon denial, this order or decision and the denial of reconsideration are FINAL and may be appealed to superior court. The appeal MUST be filed within 33 days after the date on which the AOGCC mails, OR 30 days if the AOGCC otherwise distributes, the order or decision denying reconsideration, UNLESS the denial is by inaction, in which case the appeal MUST be filed within 40 days after the date on which the application for reconsideration was filed.

If the AOGCC grants an application for reconsideration, this order or decision does not become final. Rather, the order or decision on reconsideration will be the FINAL order or decision of the AOGCC, and it may be appealed to superior court. That appeal MUST be filed within 33 days after the date on which the AOGCC mails, OR 30 days if the AOGCC otherwise distributes, the order or decision on reconsideration.

In computing a period of time above, the date of the event or default after which the designated period begins to run is not included in the period; the last day of the period is included, unless it falls on a weekend or state holiday, in which event the period runs until 5:00 p.m. on the next day that does not fall on a weekend or state holiday.